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BEYOND THE GRAVE. EXCAVATING THE DEAD IN THE LATE ROMAN PROVINCES

John Pearce

Abstract

Recent decades have been fruitful for the gathering of new evidence, and for the establishment of new methods and theoretical perspectives in Late Roman funerary archaeology. This paper reflects on three aspects of the new data, distribution, character and dissemination, using examples from Britain and beyond. Grave distribution is strongly biased towards urban contexts, with consequences for socio-cultural and demographic analysis. Opportunities to advance understanding of burial as a process rather than a single depositional moment are discussed, including funerary rituals, commemorative activity, grave marking and the disturbance of human remains. A fuller exploitation of digital dissemination is advocated, in particular to allow one of the richest pre-modern skeletal samples to achieve an impact commensurate with its scale and quality.

INTRODUCTION

In a famous article published in 1982, Richard Reece lamented the neglect of Roman cemetery studies. In particular, he noted that the human body, the burial of which was the *raison d'être* for the rituals performed for the dead and the tombs created to house them, was, in the shape of its skeletal remnants, at best decentred from the cemetery excavation report, and at worse absent from its pages. Such reports, he noted too, were few in number. A decade later Ian Morris echoed his criticisms, observing a persistent sensationalism in the study of the (Greek and) Roman dead in the focus on 'quirks' and 'oddities' rather than a systematic analysis of cemeteries directed at establishing social structures, cultural attitudes to death and population dynamics.¹ Nonetheless, in the three decades since Reece's article the analytical focus has been, if not transformed, then at least significantly expanded beyond narrowly framed questions of religious

¹ Reece (1982); Morris (1992).

or ethnic affiliation. For one, within the concept of transfrontier migration, a traditional preoccupation of Late Roman cemetery studies, a re-thinking of the relationship between burial ritual and cultural identity and the analysis of stable isotopes of strontium and oxygen from human skeletal samples, has undermined any simple association between grave furnishing and geographical origin. The case of the Winchester site at Lankhills, *ca.* 500 m from Roman Winchester's north gate, is exemplary here, where no consistent relationship could be shown between individuals whose burials rituals were argued by the excavator to be 'intrusive' and of non-local origin as indicated by isotope ratios, or vice-versa.²

For another similarly long-standing concern, conversion to Christianity, the confidence with which religious affiliation has been identified in burial practice of the 4th and 5th c. A.D. has significantly diminished.³ The Church's limited role in burial and commemoration in better documented contexts in the Mediterranean makes the existence of a common and coherent Christian burial practice in the Roman North at this time unlikely.⁴ Conversely, neglected dimensions of social identity have seen much greater attention, facilitated by more confidently aged and sexed skeletal samples and a broadening focus for the archaeology of identity in a provincial context.⁵ Age and gender have thus been shown as closely linked to the variability of Late Roman burial treatment.⁶ But perhaps the most significant trend lies in the much greater weight given to the publication of human skeletal material, allowing syntheses of diet, disease and trauma among Late Roman populations in particular, incorporating consideration of contextual factors, such as environmental setting, site type (urban, rural etc.) and differentiation by status, age and gender.⁷ The analysis of stable carbon and nitrogen isotopes provides complementary insights into dietary variability.⁸ As well as contributing to the specific debate over the origins of 'intrusive' burials, oxygen, strontium and lead

² The Lankhills analyses and other studies are discussed and referenced in the volume edited by Eckardt *et al.* (2010).

³ Schmidt (2000); Raynaud (2006) 154–56; Petts (2003) sees greater evidence for Christianity in similar evidence from Britain.

⁴ Rebillard (2009); Yasin (2009).

⁵ Mattingly (2004).

⁶ Gowland (2007); Keegan (2002); Norman (2003).

⁷ Recent examples with further references include: Gowland and Garnsey (2010); Pitts and Griffin (2012); Redfern (2008); Redfern and Gowland (2011); Rife (2012) 441–56; Roberts and Cox (2003), (2004).

⁸ Chenery *et al.* (2011) references other studies from Britain, Killgrove and Tykot (2013) from Rome and elsewhere.

stable isotope analyses have given insights into wider mobility; analyses from Romano-British cities, for example, have shown that a significant proportion of individuals buried in urban cemeteries spent their earlier years in other regions of Britain or outside the province.⁹ The wider application of radio-carbon dating, especially where other dating evidence is limited, is also putting individual cemetery chronologies and the wider Roman-Early Medieval transition on a better footing.¹⁰

The story of Late Antiquity and its communities that can be told from more recent studies is perhaps epitomised by three studies of cemeteries spanning the Late Roman to Early Medieval transition, with burials of 4th to 7th or 8th c. A.D. date at Wasperton (West Midlands, UK), St Martin-de-Fontenay (Caen, Normandy), and among the ruins of Corinth. Though established by varying combinations of evidence—stable isotopes only having been analysed at Wasperton—in all three situations the results show a long-established farming population continuing to work its living in a similar manner from a landscape with enduring productive constraints. Burial rituals and associated objects show a negotiation with external forces, and especially changes in political or religious authority as well as associated innovations in material symbols of power.¹¹

These developments in the study of Late Roman cemeteries, therefore, have significant potential for informing long-standing preoccupations in the study of Late Antiquity, and for the writing of long term demographic and also economic history, where health status is exploited as a proxy indicator for economic trends.¹² This article, however, approaches burial from a different perspective, although its concerns are relevant to the aspects discussed above. In keeping with the theme of this volume, its principal focus instead lies on the process of generating data related to cemeteries from fieldwork. The discussion is arranged in the order which corresponds, in general terms, to the stages of fieldwork; the selection of sites for investigation; the process of excavation; and dissemination through print publication and other media. It examines three linked areas: (i) the contexts from which Roman burial data derive (ii) the types of data that are recovered during excavation (and to a lesser extent other types

⁹ Chenery *et al.* (2011) references recent studies. Other sources for current and future exploitation include ancient DNA (e.g. Prowse *et al.* (2010)), craniometry (e.g. Leach *et al.* (2009)) and inscriptions (e.g. Handley (2011)).

¹⁰ E.g. Booth *et al.* (2007), (2010); Simmonds *et al.* (2008).

¹¹ Carver *et al.* (2009); Pilet (1995); Rife (2012).

¹² Scheidel (2010).

of fieldwork) and (iii) the content and organisation of the publication of fieldwork on cemeteries. Of these sections the second is the most extensive, it considering the opportunities from various data to reconstruct the burial process and the wider use of cemetery space, including cremation burials, 'windfalls' from exceptional preservation environments, insights from taphonomic processes related to human remains, and non-burial deposits within and beyond the grave with assemblages related to funerary and non-funerary activity.

Some of the observations derived from this discussion prompt caveats over the inferences to be made from cemetery data, in particular concerning the unrepresentative nature of the sample of excavated burials. Yet, the article's principal aim is not to restate or elaborate on the limitations of the evidence, rather the discussion indicates where a fuller understanding of ritual can be established, through examples from recent excavations. Addressing the nature of the evidence potentially at our disposal from fieldwork also suggests an alternative way of conceptualising the cemetery, in particular through consideration of the connections between the history of the individual grave and that of the burial space as a whole.

The focus lies on a subset of funerary contexts from Late Antiquity, in the main considering evidence primarily of 3rd to early 5th century A.D. date from the north-western provinces, though sometimes using examples from other places and periods. Examples from recent development-related excavation in Britain in particular will be used to support the discussion, but they are intended to have a wider relevance. Emphasis lies on the much more typical evidence for north-western Europe of 'flat grave' cemeteries, ranging from the graves found by trackways and ditches on the margins of farms to the sprawling fields of the dead *sub divo* on urban peripheries. Some traditional preoccupations in the study of cemeteries in Late Antiquity, for example carved sarcophagi, epitaphs or wall painting are therefore little considered here, though some new evidence for tomb monuments is assessed briefly.¹³ The geographical biases mean that limited attention is paid to some enduring concerns in funerary archaeology of this period, in particular the material setting of the cult of the saints and the 'turning inside-out' of the ancient city.¹⁴

¹³ Important examples of monumentalised necropoleis associated with churches continue to be illuminated by new fieldwork and publication: e.g. Otten (2003), Colardelle (2008), Paris Poulain *et al.* (2009) and Schmidt (2000).

¹⁴ Yasin (2009); Leone's (2007) coinage of the 'de-structuring' of the classical city, as attested by intra-mural burial groups, characterises a related dimension of urban transformation in Late Antiquity.

FIELDWORK AND ITS DISTRIBUTION

We will first consider the distribution of excavated evidence in time and space and in relation to site type. The vast majority of cemetery excavation takes place in the context of fieldwork related to modern construction and infrastructure development. This explains one of the most striking phenomena of recent decades, the increase in the data available for study. The development-related fieldwork associated with the intermittent economic booms of the 1980s to the 1st decade of the 21st c. has generated more high quality funerary data in the form of excavated burials from the Roman world than was previously available *in toto*. Taking the main source of examples, Britain, fig. 1 plots the number of excavations of burials recorded from 1920 to 2010, as reported in the annual fieldwork summaries published in the *Journal of Roman Studies* and, since 1970, *Britannia*.

Since 1980 more than 660 excavations of burials are documented, compared to fewer than 450 recorded in the previous 60 years.¹⁵ In development-related fieldwork in England and Wales after 1990, *ca.* 10% of interventions yielded funerary evidence.¹⁶ Although the scale of individual excavations may sometimes be smaller than in earlier decades, the increase in the size of the overall sample in specific instances is very significant, as the example of London serves to illustrate. At the time Reece wrote “Bones, bodies and dis-ease” (Reece (1982)), knowledge of cemeteries from Roman London was not significantly better than when Mortimer Wheeler mapped the burial evidence in the 1920s. Since the late 1970s, however, major excavations to the west, north and especially eastern sides of the Roman city, and on the margins of the bridgehead settlement at Southwark, have given a much fuller understanding of the city’s cemeteries in time and space.¹⁷ Similar observations apply to other cities, especially for cemeteries of the Mid to Late Roman period, including Dorchester, Winchester, and Colchester, as well as Gloucester, Leicester, York and Canterbury, not all yet published. At Cirencester prospection too has also contributed to an understanding of cemetery layout.¹⁸

¹⁵ As this total is of episodes of fieldwork, individual cemeteries may have more than a single entry. This is an indicative rather than exhaustive source. By comparison with published examples I estimate that *ca.* 10% of burials were not reported in this format.

¹⁶ Fulford and Holbrook (2011) 330–32.

¹⁷ Barber and Bowsher (2000); Barber and Hall (2000); Museum of London (n.d.).

¹⁸ Farwell and Molleson (1993); Finn (2004); Booth *et al.* (2010); Ottaway *et al.* (2012); Holbrook (2008); Hunter-Mann (n.d.); Müldner *et al.* (2011); Pooley *et al.* (2011); Simmonds *et al.* (2008); Gardner (2005); Weekes (2011); Winton (2009).

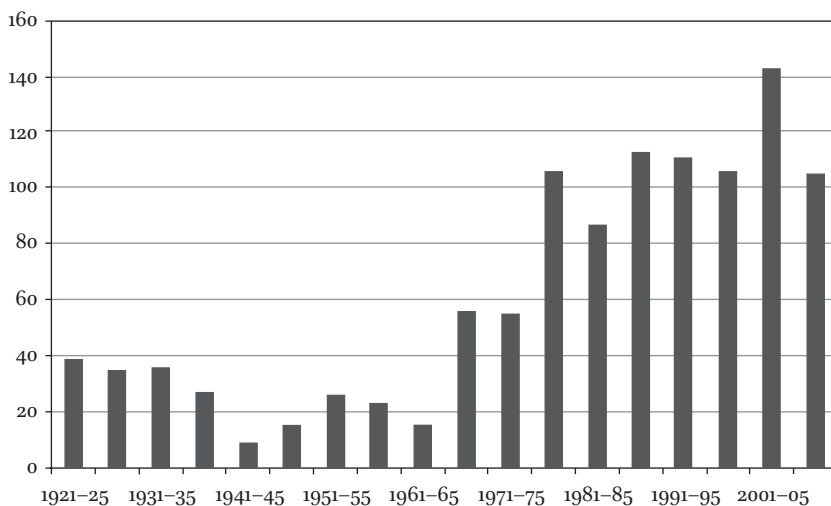


Fig. 1. The occurrence of excavations of Romano-British cemeteries, 1921–2010, by five year periods, as reported in JRS / Britannia.

A similar expansion in development-related cemetery fieldwork can be noted beyond Britain. Surveys by Blaizot and colleagues demonstrate the generation of new data on an equivalent scale in France.¹⁹ Amongst the most striking developments is the acquisition of equivalent data from Rome. The excavation of cemeteries in advance of infrastructural projects, such as the widening of the Gran Raccordo Anulare and the construction of the high-speed Naples-Rome railway line, as well as development in the city's suburbs, has produced a sample of more than 6,000 Imperial period burials in the last decade. These come from a variety of contexts in the *suburbium*, including extensive cemeteries which seem likely to have served the poorer sections of the population of the city and its hinterland.²⁰

The expansion in the quantity of excavated (and published) burials is not universal. In the south and east of the empire the samples available for study are more limited; burials and especially skeletal remains remaining the poor relation of the often very rich monuments in the study of funerary culture. Mackinnon's recent synthesis shows, for example, how

¹⁹ Blaizot *et al.* (2001), (2009).

²⁰ Buccellato and Catalano (2003); Buccellato *et al.* (2008); Tomei (2006); see the volume *Dossiers d'Archéologie* 330 (2008) esp. Catalano (2008).

Table 1. Numbers of cemetery excavations by region in JRS / Britannia 1921–2010. Regional divisions follow current usage for fieldwork reporting in Britannia (a very small number of excavations are reported for Scotland).

Region	Number of excavations
Wales	37
Hadrian's Wall and Northern England	183 (of which N. Yorks = 52)
Midlands	304 (of which Hertfordshire = 58)
East Anglia	138 (of which Essex = 99)
Greater London	97
Southern counties	234 (of which Kent = 115)
South-western counties	117 (of which Gloucestershire = 63)

few skeletal data are accessible from North Africa, for example, despite very extensive examination of cemeteries, while Goldman's characterisation of burial archaeology in Turkey as 'at an embryonic stage' applies more widely to the eastern Mediterranean. Rife's synthesis of Roman and Byzantine period burials in the Peloponnese and beyond shows the potential abundance of evidence in excavation and in archaeological archives. Where tombs have not been damaged by antiquarians or treasure hunters, the insights may be considerably richer than in the north-western Roman world, given the preservation of cemetery surfaces with grave markers and monuments as well as residues of ritual surviving *in situ* and also, where arid conditions apply, the preservation of organic materials.²¹

More significant for the purposes of the present discussion, is the uneven distribution of data within more extensively examined regions, as the example of Britain again shows (Table 1). Central and south-east England have seen larger numbers of excavations than other regions; when the totals from individual counties are identified the bias in the distribution to south-east England becomes clearer: one third of the 1110 interventions recorded in the last 40 years having taken place in Kent, Essex, Hertfordshire and Greater London. This mirrors the general distribution of excavation related to the Roman and other periods.²² In less well-represented regions specific contexts account for many excavations, for instance York and Gloucester and environs in north and south-west England, respectively.

²¹ Mackinnon (2007); Goldman (2007) 310; Rife (2012); Findlater *et al.* (1998).

²² Fulford and Holbrook (2011) 329–30.

Table 2. the number of excavations of cemeteries and of burials recorded by date in the summaries of fieldwork on Romano-British sites, JRS and Britannia 1921–2010 ('early' = 1st–2nd centuries A.D.; 'intermediate' = 1st or 2nd to 3rd or 4th / early 5th centuries A.D.; 'late' = 3rd–4th centuries A.D.).

	Number of Cemeteries	Number of Burials
Early	219	2194
Intermediate	86	3397
Late	282	4655
Unknown	525	2997

Table 3. Excavations of cemeteries and burials recorded by context in fieldwork summaries for Roman-Britain, JRS and Britannia 1921–2010. (Urban = colonies, *municipia*, civitas capitals; minor centre = 'small towns'; rural = all non-villa burials from a rural setting).

Context	Number of cemeteries	Number of burials
Urban	325	5819
Military / Vicus	76	847
Minor Centre	167	3050
Rural	491	3252
Villa	53	279

The category of 'intermediate' cemeteries masks a considerable chronological bias in the available data, most burials in these cemeteries being Late Roman inhumations (Table 2).²³ Perhaps the most significant bias lies in the context with which burials are associated (Table 3). While more interventions are recorded from a rural than an urban setting, the majority of excavated burials derive from urban cemeteries.²⁴ This is largely a product of the concentration of development-related fieldwork on the margins of the ancient centres of historic towns. This reinforces a pre-existing bias towards urban cemeteries in fieldwork and analysis, although preservation conditions and the character of ancient burial practices also contribute.²⁵ The association between data availability and development-led archaeology also, in part, explains the very limited number of excavations of cemeteries associated with Britain's northern frontiers, a bias

²³ Pearce (2008).

²⁴ This need not, of course, mean that all those buried in urban cemeteries were town dwellers.

²⁵ Pearce (2008); Philpott (1991).

compounded by a focus within research excavations in this region on fort defences and interiors, rather than on the extra-mural settlements and cemeteries.

The accumulating evidence from extensive geophysical surveys in upland northern England, Wales and Scotland is gradually redressing the imbalance, at least in new evidence for the topographic relationships between burial monuments and enclosures.²⁶ In this sense, the British sample is not representative of the excavations carried out elsewhere in the Roman north, as many more cemeteries have been excavated from frontier contexts in continental Europe, especially where Roman river frontiers and associated garrisons and settlements coincide with later population centres, even if military and civilian burials or cemeteries are not always easily distinguishable.²⁷

This skewed distribution has several implications. In Britain, like much of temperate Europe, the bulk of the province's population lived in the countryside, meaning that inferences based on a minority of the population risk being unrepresentative.²⁸ The dearth of substantial samples of earlier Roman date and from a rural context also obstructs the characterisation of urban environments from a demographic perspective. Individual rural samples are also often smaller, typically from a handful to a few tens of burials, hindering statistical analysis without amalgamating data-sets. The argument for an 'urban graveyard effect' in Roman towns and the consequent necessity of continuous rural-urban migration remains difficult to assess in the absence of this wider body of data.²⁹ Likewise, the application of stable isotopic analyses to mainly urban populations in the province means that their typicality is uncertain, either as specific to towns or even to the Roman period.³⁰ Despite the expansion in sample availability noted above, single key sites exert a substantial influence on general population characterisations. In Britain, the sample of more than 1200 skeletons from Poundbury (Dorchester) remains the largest and most

²⁶ The site summaries collected by Symonds and Mason (2009) illustrate the first results of such surveys.

²⁷ Cooke (1998), Schmidt (2000) and Pearce (2002) have references to key sites.

²⁸ Millett (1990) 181–86. Booth *et al.* (2007) and Pearce (2008) argue that an archaeologically visible burial rite only itself emerges in some areas of rural Roman Britain in the Late Roman period.

²⁹ Scheidel (2004).

³⁰ Results of stable isotope studies from non-urban cemeteries also hint at no less diverse population origins, for example at Wasperton, Warwickshire (Carver *et al.* (2009)) or Gravesend, Kent (Pollard *et al.* (2011)). Studies collected by Budd *et al.* (2004) suggest similar pre- and post-Roman mobility.

important from the province, but it is not quite typical, as has been shown for aspects of the skeletal evidence.³¹ This atypicality has significant consequences when this site contributes so much to the aggregate data from the province for higher level demographic analyses.³²

EXCAVATION OF BURIALS AND ASSOCIATED DEPOSITS

In excavation, the dominant conception of the provincial Roman cemetery is, arguably, as a repository for varying numbers of 'burials': i.e. entities characterised by various archaeological and osteological attributes, the comparison of which allows some analysis of social structure, real or ideological depending on theoretical disposition, and, with reference to the skeletal remains, of palaeodemography and pathology. For the inhumation burials, which comprise the majority of those found in late antique cemeteries, the focus therefore lies on documentation of the skeleton within the grave, the disposition of surviving elements of furnishing, and evidence for the container, along with full recovery of skeletal remains and artefacts. Analysis and comparison are based on a notional single phase in the burial process, i.e. the placing of the body in its container and in the grave, dressed or wrapped and sometimes furnished with objects, or at least what decomposition, post-depositional disturbance and the processes of excavation and recording have left of this ensemble, typically its inorganic residue. The *de facto* importance of this phase for archaeological analysis contrasts with textual evidence and visual representations, which privilege earlier stages of death rituals, for example the laying out of the body, processions and communal meals at the tomb at the funeral and later.³³ The importance of these preceding and subsequent stages applies as much in Late Antiquity as in earlier periods, where complex rituals and commemorative activity persist. Indeed, the developing cult of the saints is likely to have meant the intermittent presence of much larger numbers of participants in commemorative rituals amongst the tombs.³⁴

While texts may be rich for some contexts, for example Late Roman and Byzantine Greece, for many others, such as north-west Europe, they

³¹ For example Lewis' (2010) study of disease and trauma in non-adult skeletons suggests its atypicality for the province.

³² Scheidel (2010).

³³ Hope (2009).

³⁴ Rebillard (2009), especially 142–53 for discussion of the *refrigerium*.

are limited or absent.³⁵ Here a richer understanding of the funerary process can only be derived from archaeological evidence. Even for the best-documented phase, burial itself, there are key gaps in our understanding; whether individuals were buried dressed or shrouded (or neither), for example, cannot usually be established. Multiple forms of evidence potentially bear down on this issue, including mineral and plaster-preserved textile remains, footwear, dress and other ornaments as well as the configuration of the skeleton, but these are rarely all available in any one case and often point in different directions.

Textile fragments, for example, are usually considered to derive from shrouds, but the frequent recording of hobnails adjacent to feet suggests dressed corpses. The observations of different specialist reports are not always taken account of in syntheses.³⁶ The *mise-en-scène* of the deceased, i.e. the 'rhetoric' of their presentation when laid out for burial as an embodiment of key social and cultural values, therefore remains poorly understood.³⁷ For other rites less information is available, though it will be argued below that their accessibility through excavation is underestimated. As well as a better descriptive understanding, a fuller account of process also puts other analyses on a more secure footing. A theoretical disposition oriented towards understanding death rites as a dynamic structured process requires the establishment of such a ritual sequence.³⁸ The energy invested in burial ritual can thus be much better examined; the apparent modesty and uniformity of many late antique tombs in their serried ranks in cemeteries and grave catalogues can be much better evaluated on this basis.³⁹ Variability of ritual according to the dimensions of the identity of the deceased, for example ethnicity, age, sex, status etc., where so much emphasis is placed on grave goods, can also be much more fully assessed.

From several interlinked developments, we may legitimately identify possibilities for obtaining data from Roman cemetery excavations to achieve this fuller understanding. We are helped here by methodological innovation, especially the systematic analysis of the carbonised

³⁵ Rife (2012) 159–63.

³⁶ E.g. Farwell and Molleson (1993) 99, 111–13. The attempt to reconcile different forms of evidence at Lankhills demonstrates the difficulty of answering this question: Booth *et al.* (2010) 473–76.

³⁷ Theuws' analysis (2009) of weapon burials from Late Roman Gaul illustrates the rhetorical possibilities of burial display.

³⁸ Scheid (2008).

³⁹ Morris (1992) 52–68.

skeletal, botanical and artefactual residues from cremation and related contexts and improved understanding of corpse decomposition. It is also made possible by greater sensitivity to the survival of residues of rituals, conducted before and subsequent to interment, especially in the fills of graves or other cemetery features, or where cemetery surfaces have not been truncated. Such possibilities have been most fully explored through the examination of residues from cremation, comprising inorganic and organic material consumed on the pyre. The 'princely' burials of the Late Iron Age and Early Roman period, as well as in some other well-preserved cemetery contexts, offer key examples.⁴⁰ Cremation is also not unknown in the later Roman period, but the following discussion also draws on further types of evidence to illustrate the potential for a fuller understanding of burial rites: cases of exceptional preservation of organic materials; corpse taphonomy, in particular as illuminated by the *anthropologie du terrain* approach;⁴¹ non-burial deposits which may be the product of graveside rituals and the disturbance of burials; and (briefly) the evidence from excavation and geophysical survey of grave markers.

Cremation

The continued practice of cremation during the 3rd and 4th c. A.D., usually as a minority rite, sometimes on a larger scale, is widespread.⁴² Three examples illustrate its diversity of scale. The first, the spectacular assemblage of molten precious metal from the pyre residue associated with a Tetrarchic funerary complex at Gamzigrad (Serbia), is well-known.⁴³ The second, from 3rd c. Brougham (Cumbria), is a rite practised for the burials of men, women and children associated with an auxiliary fort, where richly furnished pyres consumed whole animals (horses) and artefacts, including metal buckets, crossbow brooches, military equipment, glass, ceramics and biers (or perhaps boxes) inlaid with bone veneer.⁴⁴ The third, in excavations from south and west of Colchester, shows more modest ceremonies. In four recent cemetery excavations 3rd and 4th c. cremations

⁴⁰ The volume edited by Scheid (2008) and Pearce *et al.* (2000) discusses recent approaches. The publications of Folly Lane (Niblett (1999)) and of Stanway (Crummy *et al.* (2007)) offer specific extended examples. The work on the Porta Nocera cemetery, Pompeii, illustrates the same approach: van Andringa and Lepetz (2008).

⁴¹ Duday (2009).

⁴² E.g. Airoldi (2002); Philpott (1991) 50–52; Theuvs (2009) 284.

⁴³ Srejavic and Vasic (1994).

⁴⁴ Cool (2004).

were reported alongside inhumations, including burials as well as other deposits of pyre debris. Pyre residues revealed the destruction of modest quantities of foodstuffs and objects during cremation, generally leaving scraps of animal bone and the remnants of pyre timber and kindling.

The most frequently attested artefacts were nails from biers, boots and boxes as well as small quantities of burnt ceramics and molten glass. Grave goods were also modest. Only one burial was distinctive, F22 (Colchester Grammar School), a disturbed adult cremation burial in the precinct of a tower tomb, where amongst the burnt and molten scraps of glass and metal were fragments of a bone *pyxis* lid, brooch(es) and toggles, as well as nails and fragments of burnt bird bone. Unburnt material from the same grave included sherds from at least five vessels and bones of a goose, adult and juvenile sheep/ goat and an adult falcon and other birds.⁴⁵ At Lankhills (Winchester) similar modesty to Colchester was exercised in Late Roman cremations; fills of *busta* and other residues of pyre ritual comprised of scraps of animal bone, nails and in one exceptional instance (895) the burnt fragments of a crossbow brooch.⁴⁶

Burials with Exceptional Preservation Conditions

For a small number of inhumation burials accidents of preservation, a consequence either of burial treatment or depositional environment, have enhanced the survival of organic elements, giving significant insights into the presentation of the corpse at the time of burial. Mummification and embalming are occasionally documented in the western empire, the best known groups being from Rome and Pannonia.⁴⁷ More significant for its contribution to the preservation of organic remains is the 'plaster' burial, i.e. the deposition of white mineral material including gypsum, chalk and lime around the corpse and sometimes interleaved between its wrappings. Examples are recorded from Britain, the Rhineland and North Africa. The anti-bacterial as well as water-absorbing property of these materials has enhanced the preservation of perishable materials.⁴⁸ It is not clear whether such rituals were intended to maintain the physical integrity of the corpse for eschatological reasons or to impede or disguise decomposition prior

⁴⁵ Crossan (2001); Brooks (2006); Orr (2010); Pooley *et al.* (2011).

⁴⁶ Booth *et al.* (2010).

⁴⁷ Topal (1997).

⁴⁸ Green (1993); Green *et al.* (1981); Philpott (1991) 90–95; Barber and Bowsher (2000) 101–103.

to interment. Aridity, waterlogging or the sealing of the coffin and/or its liner or occasionally of the burial structure, have also contributed to the corpus of such burials.⁴⁹

Occasionally such conditions allow insights into more common rituals, for example the use of reused timber for coffins in waterlogged ground by the river Fleet at Atlantic House, London.⁵⁰ However, the agents of preservation (lead or stone coffin, embalming, application of plaster etc.) typically favour the recipients of extraordinary rituals. Many instances contain the remnants of embalming materials, textiles including clothing and wrappings for the corpse, footwear, garlands, fruits and flowers and soft tissue including hair. British examples include burials from Spitalfields, London (the 'Spitalfields princess'), Boscombe Down, Amesbury (Wiltshire) (fig. 2), and Alington Avenue, Dorchester and illuminate the wrapping or dressing of the corpse, footwear, as well as the laying of flowers with the dead. The fragments of textile found within the more common plaster burials, include silk and gold thread as well as linen and wool (Table 4).⁵¹

Perhaps the most spectacular recently excavated example is the 'Signora del sarcofago', an early to mid 3rd c. A.D. female inhumation burial from a large cemetery south-east of the basilica of S. Ambrose, Milan. It was spared the robbing that had affected its neighbours, and enjoyed unusually good preservation of organic material because of the survival of the stone coffin's mortar sealing. Beneath the young woman was a textile, perhaps the cloth in which she had been transferred into the coffin. A gold hair net and a headband (?), to which ivy leaves carved in amber had been attached, also survived. Either side of her head and by her thighs were masses of mastic resin (*pistacia lentiscus*, used as incense) and grapes had been laid on her chest. The many fragments of leaves as well as pollen are the likely residue or garlands and bouquets. Textiles of five different types, two coarser and three finer, are documented, though too poorly preserved to be definitively attributed to a costume or shroud. By her sides were a fan and a distaff of ivory.⁵² The grave cut was of a sufficient size to have allowed for this arrangement of the body and its furnishing, at the base of

⁴⁹ Legrotaglie (2005) and Rottloff (2006) *passim* illustrate examples from across the Roman world; Ascenzi *et al.* (1996); Chioffi (1998) and Topal (1997) discuss Roman mummies in Rome and Pannonia.

⁵⁰ Watson (2003) 60–63.

⁵¹ Swain and Roberts (2001); Pearce *et al.* (2008) 134–35; Booth *et al.* (2010) 517–18; Farwell and Molleson (1993) 111–13.

⁵² Rossignani *et al.* (2005).



Fig. 2. A Late Roman inhumation burial from Boscombe Down, containing the remains of a female adult and a child. The preserved footwear is visible at the base of the coffin (see Table 4). (By kind permission of Wessex Archaeology, Copyright Wessex Archaeology).

Table 4. Some examples of late Roman tombs with exceptional preservation of organic materials.

Site	Description	Reference
London Spitalfields	4th c. A.D. inhumation burial of young woman within lead lined limestone coffin, wearing (?) a purple silk garment with gold thread. Fragments of woollen cloth and bay leaves found beneath skull. Grave goods include items in jet and glass probably associated with cosmetic preparation and / or application, placed between liner and coffin.	Swain and Roberts (2001)
Alington Avenue (Dorset)	Late Roman inhumation burial, of 4–6 year child in lead-lined wooden coffin excavated at extra-mural settlement near Dorchester. Above and beneath skeleton were textile remnants bearing purple stripes. Analysis showed the dye to be imperial purple, derived from a shellfish.	Davies <i>et al.</i> (2002) 133–35, 158–59
Boscombe Down, Amesbury (Wiltshire)	Mid 3rd to 4th c. A.D. grave in enclosure in cemetery associated with a village. The burial contained a stone coffin, within which were the remains of a female adult and a child. Associated objects included a single Moselkeramik beaker and a necklace of jet beads; the child wore a pair of laced calfskin shoes and the adult cork-soled shoes, perhaps lined with deerskin. (figure 2)	Pearce <i>et al.</i> (2008), 134–35
Naintr� (Vienne, France)	Two 3rd c. inhumation burials (adult and child) in lead-lined stone coffins within sealed masonry vaults near (disused?) villa. The adult burial contained evidence for textiles of several types including gold thread as well as two pairs of sandals made from plant fibres outside the coffin, evidence for one shoe being preserved as an imprint in a patch of plaster that had fallen	Devi��� <i>et al.</i> (2011). Farago-Szekeres and Duday (2008)

Table 4 (*cont.*)

Site	Description	Reference
	while fresh from the vault ceiling. As well as diverse grave goods, a bag of pepper corns and a date, a wider range of textiles as wrapping for the body was documented in the adjacent child's grave; among the 6 different types were silk damask and gold thread... In the corrosion products on the upper surface of the lead coffin liner were the imprints of flowers identifiable to species. Analytical work continues, most recently identifying abundant traces of Tyrian purple dye across the face and body of the corpse of the adult burial.	
Quadrangle of the Catholic university of Milan	See description in text	Rossignani <i>et al.</i> (2005)
Budapest	First half of 4th c. A.D. Partially embalmed corpse in stone coffin, 5 layers of wrapping from shoulders to knee stuck together by resin, with further cloths over the body and a mat beneath. Documented textiles include wool and silk. A gold diadem, a basket containing fruit and flowers, cork-soled shoes with floral and bird motifs stitched in gold leaf in their uppers, and wooden boxes containing abundant grave goods are also preserved.	Poczy (1964)

the deep pit (> 2 m) within which the burial was laid. The remarkable 3rd c. burials from Naintr  (Vienne) are even richer in terms of their textile assemblage (Table 4).

Such burials have primarily been studied as single case studies, usually for their specific artefact contents, especially textiles. However, they have the potential to greatly enrich our understanding of burial ritual, in particular the *mise-en-sc ne* of the **corpse**; including the arrangement of

hair, the dressing or wrapping of the body, and the (leather or plant fibre) shoes, without hobnails, that are normally the only archaeologically recoverable traces of footwear. The presence of flowers and incense also allows us to reconstruct with greater specificity the sensory impact of the displayed corpse. The quantity and character of textiles in which these dead are dressed or wrapped, enhances confidence that the emphasis on dress ornaments in the archaeological study of late antique burials as identity and status markers is not misplaced. It also reminds us that ornaments complement a presentation primarily created by other means.⁵³ This same evidence suggests too that the seeming lack of distinction between the dead in Late Roman cemeteries is in part a taphonomy-dependent illusion. Instead, on and around the corpse was created an image of the 'beautiful' dead that extended aristocratic self-presentation through dress, gesture and luxury in public and private arenas, to the grave. Similarities among burials from Britain to the Black Sea suggest an empire-wide language of display of this type.

Skeletal Taphonomy and Burial History

Such preservation will only occasionally apply, but more normal burial environments also offer further opportunities for reconstructing the presentation of the dead. Beyond documenting skeletal position and the disposition of grave furniture, the current emphasis in excavating the skeleton lies on systematic retrieval of skeletal and associated elements, e.g. calcified masses such as gall or kidney stones, for subsequent analysis, for example, through attention to recovery of bone elements which might be overlooked in hand excavation.⁵⁴ However, there is considerable potential for the skeleton itself to be exploited more fully as a source of evidence for ritual process and depositional history through the documentation of relationships between skeletal elements in the grave. This not only applies to unusual treatments of the body, such as the peri-mortem decapitation of individuals in provincial Roman, especially Romano-British cemeteries.⁵⁵

Here, the 'anthropologie du terrain', pioneered by Henri Duday and applied in excavations in France and elsewhere in continental Europe, is

⁵³ Swift (2000), (2003).

⁵⁴ McKinley and Roberts (1993); Brickley and McKinley (2004).

⁵⁵ Crerar (2013) and McKinley and Dinwiddy (2009) references earlier studies for Britain. Belcastro and Ortalli's (2010) study of northern Italy illustrates the existence of analogous treatments in continental Europe.

a significant innovation, connecting anatomical observation of the skeleton in situ, with the reconstruction of the ritual by which the body is buried. It begins with the truism that the disposition of the dead as seen in the skeleton when excavated is not that of the deceased as buried in the ground. Taphonomic factors, especially decomposition of the ligaments in particular, are responsible for the likely displacement of its surviving skeleton from the original position of the corpse in relation to the space of the tomb. Ligaments decompose at different rates depending on the strength of the articulation which they connect: where stronger, as at the knee, for example, the joint will hold for longer. Whether or not voids exist within the burial at the time of decomposition—for example because of the presence of a coffin—will condition how the bones of the joint move and separate when the ligaments connecting them rot. The phenomenon of ‘bone tumble’ has always been of intermittent interest, but the Duday approach aims systematically to reconstruct the taphonomic history of the individual burial in order to ascertain its original configuration.⁵⁶ Close observation of the articular relationships allows post-mortem movement of the skeleton to be assessed, and with this burial rituals, of which no direct trace may survive to be reconstructed: for example headrests of organic materials, timber coffins or covers made without nails of which all traces have otherwise decayed, or the wrapping of a body in a shroud.

Where applied to Roman period burials by Duday and others, the results show interesting individual variants as well as a better understanding of common rituals. As an example of the latter, the analysis of over 194 Roman period inhumation burials from the Marseille Sainte Barbe site, mostly of 2nd c. A.D. date, showed that most bodies had decomposed within a void, supporting the direct evidence of nails or staining attested in some **but not all such burials**. Skeletal configuration also showed that the space allowed for individual Roman period burials was more generous than for earlier periods on the same site. In a minority of cases the disposition of bones at the shoulders, pelvis or feet showed the existence of either a lateral or longitudinal compression of the corpse, squeezed into a tight shroud, other container or grave cut.⁵⁷

In individual cases, organic containers of unusual form are revealed by this analysis. Fig. 3 shows a 5th c. A.D. example from St. Cheron, Chartres,

⁵⁶ It is difficult to decide retrospectively between the possible causes of ‘bone tumble’: e.g. Farwell and Molleson (1993) 65–66; Barber and Bowsher (2000) 88.

⁵⁷ Moliner *et al.* (2003): 101–10. Other examples are documented by Nin (2006) and Blaizot *et al.* (2009) *passim*.



Fig. 3. St Cheron, Chartres, burial 98 4th–5th century A.D., recorded by the anthropologie de terrain method (D. Joly and P. Courtaud). The marked transverse compression of the skeleton, with the upper limbs beneath the thorax, ribs below the vertebrae and the femoral heads beneath the pelvis, suggest that the body was placed supine in a V-section wooden coffin (a hollowed-out log?). Where the ligaments decomposed more rapidly, the bones formerly connected by them had separated and slid down the sides of the coffin to gather at its base before the coffin itself rotted. (By kind permission of Henri Duday).

where the form of the coffin as a hollowed log, of which all trace had otherwise disappeared, can be inferred from the skeletal configuration.⁵⁸ With good skeletal preservation this approach has a potentially wide application to many sites. A key consideration is of course time and cost, both to equip excavators to document skeletal configuration appropriately and for the speed at which burials can be excavated. For example, the Salleles d'Aude excavation of infant burials within a 1st c. A.D. potter's workshop took on average between 12 and 14 hours per burial.⁵⁹ In the development-related excavations at Marseille Sainte Barbe, time pressure meant a focus only on documenting selected major articulations in detail, including the cranium, pectoral girdle, rib cage, pelvic girdle and lower limbs.⁶⁰

On a related point, extensive evidence exists from Late Roman cemeteries for the post-burial displacement of human remains in the form of redeposited and disarticulated human skeletal material. This is widely attested but variably, and usually briefly, reported; its full analytical potential is therefore yet to be realised, either for insights into taphonomy and burial chronology or cultural attitudes to the dead.⁶¹ The following examples from British sites illustrate the diverse context associations. The careful reburial of single disturbed skeletons, or at least their major elements, skull, pelvis and some long bones, within or outside the primary burial, is infrequently attested. In the excavations at Lankhills, for example, the bones of the primary occupant of grave 535 were displaced to its sides when a later burial was placed in the grave cut on the same orientation; burial 447 comprised a tight cluster of disarticulated bones within another grave, perhaps buried within a bag. Grave 1049 at London Road Gloucester, the disarticulated remains of a single adult male, took a similar form. A stone coffin from a rural settlement at Mangotsfield (Bristol) contained the remains of a female skeleton, the primary burial, which had been carefully redeposited over and around a second corpse, an adult male burial, when the coffin was reused.⁶²

Examples of reburial of this kind are rarely documented in Britain, which may explain the lack of an equivalent term in English for 'réduction' and its

⁵⁸ Duday (2009) 50–52.

⁵⁹ Duday (2009) 64.

⁶⁰ Moliner *et al.* (2003) 78–79.

⁶¹ Current guidance advises against detailed documentation of disarticulated skeletal material because of the limited potential for osteological inferences: Mays *et al.* (2002) 4–5.

⁶² Booth *et al.* (2010) 37–38; Clarke (1979) 187–88; Richards (1999) 64–83; Simmonds *et al.* (2008) 24.

cognates, used in French and the Romance languages to describe this phenomenon.⁶³ In the eastern empire the deliberate reuse of the same grave pit or cist for the burial of several individuals is also more frequently documented, though the numbers of such cases are not always large.⁶⁴ More common is the occurrence of skeletal material as individual fragments or, less frequently, as associated bone groups, the result of Roman period disturbance of graves and redeposition within or occasionally beyond the cemetery.

In two of the rare examples where quantification is possible, Lankhills (Oxford Archaeology) and London Road (Gloucester), around one third of graves contained small quantities of fragmentary disarticulated material.⁶⁵ In a much fuller discussion than in most subsequent publications, Clarke exploited the frequency and associations of disarticulated material at Lankhills to inform his discussion of how long after burial grave position was respected.⁶⁶ At Bathgate (Cirencester) and Trentholme Drive (York) the displaced skeletal material is much more abundant from more frequent grave disturbance in intensively used burial spaces. The limited examination of the partial skeletons makes it impossible to establish how soon after burial disturbance took place, but in many cases too little time had elapsed for all the ligaments to have decomposed.⁶⁷ Similarly, pit and ditch fills from Lant Street, Southwark, illustrate the substantial quantities of redeposited disarticulated bone sometimes associated with cemeteries where non-burial features were used for redeposition.⁶⁸

Late Roman cemeteries generally lack evidence for the targeted reopening of burials sometimes identified from stratigraphic observation or post-excavation analysis in some Anglo-Saxon and Merovingian tombs.⁶⁹ However, in occasional cases human skeletal material either appears to have been deliberately removed from burial or its displacement by natural agencies has been facilitated by human action. For example, fragments of human adult and infant skull and long bone in late 2nd to 4th c. contexts with domestic rubbish at Causeway Lane, on the north-east margins of the occupied area of Roman Leicester, may be an accidental product

⁶³ Duda (2009) 72–88.

⁶⁴ Rife (2012) 201.

⁶⁵ Booth *et al.* (2010) 339; Simmonds *et al.* (2008) 66–67, 148–49.

⁶⁶ Clarke (1979) 186–88.

⁶⁷ McWhirr *et al.* (1982); Wenham (1968).

⁶⁸ Sayer (2006). The possibility of secondary burial rituals here and in a sample of other sites in London, Dorset and the Fen Edge is assessed by Crerar (2013).

⁶⁹ Aspöck (2011).

of burial disturbance, but the complete skull in a pit fill is much more likely to represent a deliberate deposit.⁷⁰ The skull with traces of scalping is the most striking of several finds of human skeletal fragments in the shafts dug on the hill south of the conquest-period temple tomb at Folly Lane (St. Albans).⁷¹ Excavations in the Moorfields/Finsbury Circus area in London provide a context for the many skulls found further south in the Walbrook's course through the Roman city. Burials were made so close to the tributary channels of the Walbrook that their erosion from the banks must have been anticipated by mourners.⁷² In view of this diversity of practice, the argument becomes less strong for the cranial and femur fragments (perhaps from the same individual) from 'Hull's pit'—a feature south of the apse of the possible church at Butt Road (Colchester)—to be a manifestation of relic cult.⁷³

Artefact Assemblages from Grave Fills and Beyond

We have already referred to the existence within cemeteries of features and assemblages other than from burials, and these are now considered further. For the tomb as a site of commemorative commensality, textual sources reveal significant continuity from the earlier Roman period into Late Antiquity, at least in the Mediterranean, even if ancient and modern authors dispute its motivations and religious context.⁷⁴ However, the surviving textual sources are of limited use for determining the scale or character of this activity. Two forms of material evidence can be anticipated for this practice: built facilities for the *refrigerium*, such as couches and benches, wells and tables, for ritual and feasting; and deposits of ritual residues and other material, either deposited in cut features, including fills of graves, plot boundary ditches or rubbish pits, or trampled into cemetery ground surfaces.

The former are preserved primarily in areas of the Mediterranean where tomb superstructures have survived *in situ*.⁷⁵ One rare example where both tomb structure and ritual residues have received equal attention is the exceptional burial at Punta Secca, ancient Kaukana, in Sicily, created

⁷⁰ Connor and Buckley (1999) 365.

⁷¹ Niblett (1999) 404; Fulford (2001) cites other examples.

⁷² Butler (2006) 38–44; Burnham *et al.* (2006) 419.

⁷³ Crummy *et al.* (1993) 175–76, 188–89.

⁷⁴ Rebillard (2009); Yasin (2009).

⁷⁵ E.g. Fiocchi Nicolai (2001).

within a house in the first half of the 7th c. A.D. The primary occupant of the slab-covered tomb, built into the corner of a room, was a pregnant woman in her mid twenties, with a three to five year old child buried later, displacing part of the female skeleton. A hole in one of the slabs allowed the pouring of libations. Within the room, perhaps open to the sky, were structures (possibly a *mensa* and bench), hearths and artefact assemblages (amphorae, table and coarsewares, glass, shellfish remains) that appear to relate to commemorative activity in a Christianised setting, as indicated by chi-rhos.⁷⁶ On a larger scale, the surface deposits associated with the *sub divo* cemetery of late 3rd to 5th c. date from the valley of the temples at Agrigento, include substantial quantities of cooking, storage and table wares, amphorae, glass, ceramic and glass lamps, as well as animal bone (unreported) and other material probably deriving from meals consumed in the cemetery, and especially overlying tombs 19–22 where the existence of a possible *mensa*-like structure was mooted. By contrast, furniture associated directly with the graves, mostly rock-cut and often reused, was almost entirely lacking.⁷⁷

As Schmidt's recent synthesis shows, little evidence survives of built facilities for dining in northern Europe.⁷⁸ From the cemetery, typically only deeper graves and other cut features will survive; only in exceptional cases have cemeteries been spared the loss of monuments and ground surfaces by attrition, robbing or truncation by ploughing or later occupation. Such features have in the past taken a much lower priority than burials themselves. The passing reference in a recent discussion of late antique cemeteries from France to features found within them, such as hearths and ovens as well as pits and ditches filled with their residues, represents the typical pattern.⁷⁹ Features such as enclosure ditches have often been excavated only on a small scale, for example, primarily to obtain dating information. The following examples from Britain briefly illustrate the range of deposits and contexts from which activity related to burial has been documented, as well as the difficulties of differentiating the products of multiple depositional processes, including the disturbance of burials, graveside consumption of food and drink, commemorative activity and rubbish dumping.

⁷⁶ Wilson (2011).

⁷⁷ Carra Bonacasa (1996).

⁷⁸ Schmidt (2000).

⁷⁹ Blaizot *et al.* (2009) 65–68.

Objects analogous to those deposited in graves are illustrated by 4th c. A.D. burials from Lankhills, such as the coins and ceramics in the backfills of the graves which accumulated within the filled-in boundary ditch on the cemetery's eastern margin, as well as dog skeletons, coins, personal ornaments and pewter bowls in others.⁸⁰ Likewise, fills of six Late Roman inhumation graves at Alington Avenue, Dorset, included fragments of single near-complete Black Burnished ware jars, and fowl bones were found in many others at the same site, these being also the most frequent grave goods.⁸¹ The usually small quantities of highly fragmented and abraded ceramics that comprise more typical grave fill assemblages are more difficult to assess. In one of the most fully published assessments of such material, for the East London cemetery, the fabrics of these ceramics were shown to more closely resemble those from settlements than burials, but without a quantification of forms the likely source, whether rubbish or ritual, is difficult to establish. The assessment of animal bone from similar contexts suggested that the former was more likely, though the abundant sheep-size fragments of ribs and long bones were tentatively attributed instead to funerary ceremony.⁸²

Some non-grave features may also have related directly to ritual process. At Victoria Road West (Winchester), in features of similar dimensions and forms to graves, but lacking any evidence of human remains, were two nailed wooden boxes containing complete pottery vessels (127 and 189), illustrating a widely encountered type of feature sometimes interpreted as a cenotaph.⁸³ In the earliest documented activity in the northern part of the Lankhills cemetery, eight shallow pits up to 4 m in diameter were cut, over which later burials, inhumations and cremations and further pits were cut over the following century. Similar pits were also documented *ca.* 25 m to the west, but the largely findless fills mean that the pits' specific function remains opaque.⁸⁴ At Victoria Road West several analogous features within the Late Roman cemetery were excavated, including three deep pits cutting a roadside ditch in the earliest period of burial activity (late 3rd or early 4th c. A.D.). Skeletal remains in their fills indicated they had served as an accidental trap for amphibians and one contained

⁸⁰ Booth *et al.* (2010) 26–32; Clarke (1979) 183–85.

⁸¹ Davies *et al.* (2002) 166–68.

⁸² Barber and Bowsher (2000) 76–81.

⁸³ Ottaway *et al.* (2012) 107–109, 113; Simmonds *et al.* (2008) 136–37; Cool (2011) 296–97.

⁸⁴ Booth *et al.* (2010) 26–32; Clarke (1979) 183–85.

the skeleton of a dog, but their original ritual or other purpose was not established.

Deposits comprising mainly faunal remains are also documented at varying scales. North of Roman London, in excavations at Houndsditch, two inhumation burials among 36, probably of 4th c. date, were associated with a single pit containing faunal material: mostly cod bones but also mackerel and a small quantity of cattle, sheep/goat, pig and chicken.⁸⁵ At the Colchester sites discussed above, similar features were also noted; for example at Handford House a pit (F205 / F193) at least 3 m wide included the butchered remains of cattle, sheep, pig and other mammals.⁸⁶ At another site in Colchester's southern suburb, Butt Road, debris layers overlying the apsidal-ended building interpreted as a church contained a faunal assemblage with a very high proportion of pig and bird bones, as did a pit at the eastern end of the structure, along with other artefacts including many coins, an iron pan and knife, one complete beaker and substantial parts of six others.⁸⁷ Disarticulated horse bones from at least four individual animals with evidence for butchery were deposited within the fill of two graves at Driffeld Terrace south-west of York. These were elements of an unusual faunal assemblage dominated by equids, in a group of burials well-known for its anomalous population distribution, comprising primarily young adult males with very frequent evidence for peri-mortem trauma.⁸⁸

Other animal deposits of a likely ritual character do not show evidence of consumption. Two instances from East London illustrate their complex character; in one a deer, horse and dog had been buried in a pit placed nose to tail while the assemblage of another comprised the skeletal remains of many amphibians, shrews and voles and a heron as well as two complete but broken flagons.⁸⁹ On the southern periphery of London's bridgehead settlement in Southwark, excavations at Lant Street and Swan Street revealed the deposition of dogs in wells and boundary ditches on the margins of the burial area, including one which had been decapitated.⁹⁰ Similar deposits of carcasses or articulated limbs have been documented in other cemetery contexts, for example single horses at the East London

⁸⁵ Sankey and Connell (2007).

⁸⁶ Orr (2010).

⁸⁷ Crummy *et al.* (1993) 175, 178–80.

⁸⁸ Carrott *et al.* (n.d.).

⁸⁹ Barber and Bowsher (2000) 79–81, 366–68.

⁹⁰ Beasley (2006); Sayer (2006).

cemetery. The processes behind their deposition are, like those of the grave fill assemblages, difficult to differentiate, some representing the disposal of unwanted carcasses, others the product of sacrifice or associated ritual.⁹¹

The survival of cemetery ground surfaces is less frequent, but excavation in the Abbey cemetery, across the Ver north-east of Verulamium, of fifty late 3rd–4th c. graves—mainly east-west aligned inhumations in coffins and/or packed with stone—provides a rare instance. In the southerly of the two excavated areas, patches of cemetery surface survived: a gravel layer laid in the late 4th c. and repaired several times over the graves. Within it were abundant finds, including coins, ceramics and glass. The excavators associate this assemblage with feasting and fairs connected to the cult of St Alban.⁹² However, the evidence available from other sites, for example the artefact-rich but briefly described deposits comprising the ‘grave earth’ at Cirencester Bathgate, shows that this is likely to be a wider phenomenon. That is, the cemetery soils there into which the burials were dug, contained many coins, a diverse pottery assemblage, as well as animal bone (and disarticulated human bone).⁹³

The complexity of many cemetery’s histories compounds the challenge of characterising behaviour documented in excavation, having been not only spaces of burial but also of non-funerary activity, either from preceding or subsequent phases on the same site, or contemporaneously in relation to nearby settlements. The heterogeneous activity in suburban areas complicates the attribution of a specifically funerary purpose to individual deposits. At London, for example, both the eastern cemetery and Bishopsgate excavations revealed multiple uses for peri-urban space, including quarrying, farming including crop processing, and rubbish dumping, the latter at Bishopsgate comprising a high percentage of horse remains.⁹⁴ The extensive excavations south of Colchester and north of Winchester reveal equally complex extra-mural activity, with artisanal, agricultural, quarrying and funerary activity taking place in close proximity and often displacing one another over time; at Colchester this occurring alongside the construction and use of a circus, constructed in the 2nd c. A.D.⁹⁵ Recent excavations of peri-urban space in Gallic towns and elsewhere, also reveal

⁹¹ Barber and Bowsher (2000) 79–80; Maltby (2010).

⁹² Biddle and Biddle (2001).

⁹³ McWhirr *et al.* (1982); See also Simmonds *et al.* (2008) 102, 136–37.

⁹⁴ Barber and Bowsher (2000); Swift (2003); Watson (2003).

⁹⁵ Pooley *et al.* (2011).

the complex interleaving of ritual and rubbish deposits, in association with tomb monuments and enclosures.⁹⁶

Monuments

Funerary monuments, being otherwise well-studied, are not a primary focus of this paper.⁹⁷ However, recent excavations have shown that there remains substantial potential, where cemetery strata are not heavily truncated, to improve understanding of grave marking as a further facet of the enduring relationship between the living and the dead. Recent excavations at Colchester, for example, reveal the diversity of 3rd and 4th c. A.D. monuments, including masonry tombs on rectangular and hexagonal-plans, barrows and the apsidal building at Butt Road interpreted as a church. As noted above, geophysical survey has also indicated further likely examples, though their funerary purpose and date in most cases remain to be confirmed. One exception is at Binchester (Co. Durham) where small-scale excavation has identified the funerary purpose of three heavily robbed stone structures within enclosures north-east of the fort; the limited associated artefact assemblage spans the Roman period.⁹⁸ The recurring layout of rows of burials in many Late Roman cemeteries has suggested the existence of now lost grave markers; the recent Colchester excavations have again provided evidence for the form such modest markers took.⁹⁹ For example, on Garrison site J1 North at least 25 post-holes were identified in likely association with Roman inhumation burials. Excavations in 2012 of burial plots with well-preserved surfaces at Butt Road revealed rows of stakeholes, typically no more than 20 cm in diameter, delimiting plot boundaries and burial sites.¹⁰⁰

The falling into disuse or disrepair of the tomb is more rarely considered than other characteristics but, though difficult to date, is nonetheless significant for the practice of commemorative ritual and the perpetuation of group memory. Here, the Poundbury mausolea offer a suggestive example; in the clearest case R8, its maintenance spans the 4th c. A.D.

⁹⁶ Ballet *et al.* (2003); Goodman (2007); Vaquerizo (2010).

⁹⁷ Bowes (2006); Johnson (2009) and Schmidt (2000) discuss late antique examples.

⁹⁸ Burnham *et al.* (2008) 283–85.

⁹⁹ Brooks (2006); Crummy *et al.* (1993); Hilts (2013); Pooley *et al.* (2011).

¹⁰⁰ Pooley *et al.* (2011) 26–34.

before falling into disrepair.¹⁰¹ The currently available information does not allow us to assess the typicality of this instance.

DISSEMINATION

In this final section, the focus shifts to the consequences of the above discussion for the dissemination of the results of burial and cemetery excavations from our period. It notes the impossible demands that the scale of (some) cemetery excavations, and the data currently or prospectively generated from them, impose on conventional publication and assesses the use of electronic publication for disseminating data for the Late Roman and other periods.

The significant expansion in fieldwork in recent decades discussed above has been reflected unevenly in publication.¹⁰² Some projects have been published in a form approximating to the (Platonic) 'perfect' report identified by Reece, combining: a stratigraphic account of the cemetery's development over time as a space with traces of human behaviour and of burial rituals; an inventory of burials, including both their osteological and archaeological attributes; and an integrated discussion of the evidence of cultural and skeletal remains to characterise the community whose cemetery is under study. Ideally, any interpretation should be strengthened by an assessment against the wider background of, for example, burial rituals or population characteristics.¹⁰³

However, the extent and character of publication varies, depending in part on funding as well as differing academic traditions of dissemination. Many significant projects are published only in highly summarised or selective form,¹⁰⁴ and information from **this** is otherwise only available in archive or as 'grey literature', the unpublished interim reports created following fieldwork.¹⁰⁵ It is not my purpose here, however, to review publications against this standard as we may doubt whether the 'perfect

¹⁰¹ Farwell and Molleson (1993) 45–61.

¹⁰² Even where funding is available for post-excavation analysis and dissemination, as under PPG16 in England and Wales, as Fulford and Holbrook's survey (2011) 333–34 demonstrates.

¹⁰³ Reece (1982), (1995), (1999), (2005).

¹⁰⁴ For example the results of recent fieldwork at Rome, referenced above.

¹⁰⁵ The online availability of grey literature, for example through the Archaeology Data Service, blurs these distinctions: <http://archaeologydataservice.ac.uk/archives/view/greylit/>.

report' should be the normal outcome of a cemetery excavation. The scale of excavation and the (ever-expanding) analytical possibilities with their attendant documentation make the publication of the full report impossible, especially of complete skeletal inventories.

Numbers of burials produced in large fieldwork projects defy publication in conventional printed form. Few projects could draw on the resources, made available over decades, for the publication of two of the largest Roman funerary fieldwork projects: Wederath (Rheinland-Pfalz) and Krefeld-Gellep (Nordrhein-Westfalen).¹⁰⁶ A cemetery of several hundred burials can be barely accommodated within the pages of a single volume, for example the larger urban cemetery excavations from Britain referenced above, and only by presenting skeletal data in a summary form. Where fuller skeletal (and artefact) inventories are compiled, publication is enormously expanded; the approximately forty-six individuals from the late antique cemetery from Agrigento occupy as many pages as the six hundred+ cremation and inhumation burials published in the East London report.¹⁰⁷ Stable isotope analysis and other biomolecular data in future will further expand the content of skeletal inventories, as would the application of the 'anthropologie de terrain' method to reconstruct the taphonomic process from close recording of skeletal configuration. The page devoted in the burial catalogue to each Late Roman inhumation from the southern cemetery at Aix en Provence illustrates the implications; as little direct evidence survived for grave goods, coffins or other burial structures, this comprises primarily a description of the skeleton and a report on the anatomical relationships observed during excavation.¹⁰⁸ The greater attention advocated above to disarticulated human bone and non-burial deposits, would also compound this problem.

Cemeteries, as much as any category of archaeological information, lend themselves to digitisation (especially spatially referenced burial inventories), but while fieldwork and subsequent analysis now almost always involves the creation of substantial digital resources, typically with a geo-referenced burial inventory, their electronic dissemination is uneven; combining print and digital media is not uncommon but **not always done well**. Web dissemination is likely to be a more accessible and stable means for making available very large datasets indefinitely, providing that

¹⁰⁶ Pearce (2002).

¹⁰⁷ Barber and Bowsher (2000); Carra Bonacasa (1996).

¹⁰⁸ Nin (2006) 223–33. See also Moliner *et al.* (2003).

institutional continuity can be guaranteed.¹⁰⁹ Resources for Roman period cemeteries on the UK's Archaeology Data Service—a national digital repository for project archives and 'grey literature' *inter alia*—illustrate the varied uses to which web dissemination has been put.¹¹⁰

Much of the data made available are of a similar form to that found on a CD: i.e. tabulated supporting data, for example artefact assemblages; environmental data or stratigraphic relationships; as well as full versions of specialist reports and further images.¹¹¹ The Channel Tunnel Rail Link Section 1 archive also publishes online a stratigraphic narrative and analyses of finds for individual component sites, complemented by a printed synthesis.¹¹² This puts significantly more data at the disposal of the reader, but valuable though this is, the full benefits of web-based publication have yet to be realised.

The use of PDFs in this and other reports as a publication medium impedes the movement between text, image and data.¹¹³ The complementing of a grave inventory with a web-mounted spatial interface and a search facility would substantially facilitate re-analysis and cross-referral between site plans and graves, and take fuller advantage of the possibilities of digital publication; a late antique example being the online archive from the excavation of the 5th to 7th c. cemetery at Llandough, south-west of Cardiff.¹¹⁴ With a shift to digitisation directly from the point of fieldwork, more flexible digital access to cemetery data will perhaps be more easily realised. The Prescott Street excavation (East London) illustrates the possibilities that *ab initio* digitisation allows, though so far its major emphasis has been on facilitating public engagement.¹¹⁵

Finally, one of the most important changes in the study of Late Antiquity has been the much fuller attention that has been paid to human remains. While significant results have come from the synthesis of the

¹⁰⁹ Withdrawal of funding from the UK Arts and Humanities Data Service (2008) illustrates the attendant risks (<http://www.ahds.ac.uk/>).

¹¹⁰ <http://archaeologydataservice.ac.uk/>.

¹¹¹ See, for example, the archives for the Brougham, East London and Wasperton cemetery projects. <http://archaeologydataservice.ac.uk/archives/>.

¹¹² Foreman (2009).

¹¹³ For example, the report on the Colchester garrison excavations of 2004–2007 includes a single chapter of more than 1000 pages detailing burials from two cemetery excavations: Pooley *et al.* (2011).

¹¹⁴ Llandough: http://archaeologydataservice.ac.uk/archives/view/llandough_cadw_2004/ (Holbrook and Thomas (2004)).

¹¹⁵ Prescott Street: <http://www.lparchaeology.com/prescot/>; G. Hunt pers. comm. Fulford *et al.* (2010) discuss the wider context of on-site digitisation.

now large samples, the variability in the recording of skeletal characteristics **but also** their dissemination, obstructs wider exploitation. The difficulties posed by summary presentation for assessment and re-analysis of skeletal data are well-known. For example, comparison of the results of multiple projects without archival work is often obliged to use the crude prevalence rate (CPR) of an osteological characteristic, i.e. where its frequency is calculated in relation to the total skeletal sample, rather than as the more informative true prevalence rate (TPR), based on the characteristic's occurrence as established with reference only to skeletons where the appropriate anatomical element survives and permits its presence or absence to be observed.¹¹⁶ Given the interest in the synthesis of skeletal data for wider demographic and socio-economic history, this is a significant problem. Re-analysis with any quantitative element will be significantly hindered by a need to recreate data in digital form where they will almost certainly have been compiled and assessed digitally during post-excavation analysis before publication. The creation and dissemination of skeletal inventories in a shared database format would significantly enhance their wider exploitation through limiting the labour of re-digitisation or harmonising digital resources in diverse formats. For London and Rome, the databases used for recording skeletal inventories of burials, excavated across multiple development-related projects, illustrate the potential of such resources.¹¹⁷

CONCLUSION

The focus in this paper on areas where the understanding of burial practice may be improved and suggestions for change, should not obscure the very significant developments in Roman funerary archaeology outlined in the introduction. The scale of fieldwork in recent decades makes the mid first millennium A.D. one of the best-documented periods, especially of pre-modern skeletal samples. The comments on dissemination notwithstanding, a very much larger sample is now available for discussion and use in wider synthesis. Nonetheless, consideration of how sites are chosen,

¹¹⁶ Roberts and Cox (2003).

¹¹⁷ London: <http://www.museumoflondon.org.uk/Collections-Research/LAARC/Centre-for-Human-Bioarchaeology/Database/>; Rome: Minozzi and Zabotti (2008). Current English Heritage publication guidelines do not yet consider digital dissemination: Mays *et al.* (2002).

excavated and the results disseminated give insights into current biases in our data and into how understanding might be extended. While the total sample is increasingly impressive, its distribution, if we take the British case as typical, is unrepresentative in its bias towards urban cemeteries. The value of new urban data should not be under-estimated, even this sample being dominated by a few key sites, but opportunities to examine rural burials must be taken full advantage of, and their skeletal analyses in particular incorporated in wider synthesis. As samples are typically small, their distribution over many publications inhibits synthesis, and the case for a larger digital architecture for inventorising their results, as well as that of funerary excavations in general, is especially pressing.

Research excavations have allowed for some experimentation as regards the recovery of burial evidence, which has emphasised that this process deserves further attention. Such a process encompasses the detailed documentation of the grave itself and the more or less ephemeral traces of activity beyond.¹¹⁸ But, as such excavations only account for a minute percentage of fieldwork, a wider understanding can only be established in development-led excavations, which are also typically on a larger scale and likely to encounter a wider range of features. This is not to propose, as a consumer of fieldwork results and only an occasional practitioner, the close documentation of all assemblages and features of the type discussed in the preceding paragraphs as the norm. Instead, wider experimentation should assess their potential (as with the *anthropologie de terrain*), though this may be less easily written into research frameworks for development-led fieldwork, where the 'repository' model for the cemetery prevails.¹¹⁹

The discussion of ritual is not intended as an exhaustive account of analytical opportunities offered by cemeteries for reconstructing ritual and its setting. A focus on this has meant that the traditional preoccupation of funerary archaeology, the interpretation of grave goods, has been left largely unexamined here **and remains** of course central to the interpretation of burial data, as the studies of identity cited in the introduction demonstrate. Other possibilities which may be enabled through excavation, such as palaeobotanical or geomorphological analysis to reconstruct cemetery environments, have also not been discussed. Nonetheless, the examples discussed above show significant scope for extending understanding

¹¹⁸ Scheid (2008); van Andringa and Lepetz (2008); Chapman *et al.* (2010) 358–59.

¹¹⁹ For example, the English Heritage regional research frameworks, linked from the Association of Local Government Archaeological Officers' website: http://www.algao.org.uk/england/research_frameworks.

of the burial process and ritual sequence, though opportunities to do so vary according to ancient burial practice and site histories.

Since cremation continues into the 4th c. A.D., the same analytical techniques that have recently illuminated cremation cemeteries of earlier date can be applied; existing examples show a wide variability in pyre treatment. For the layout of the body at death the *anthropologie de terrain* offers a significant opportunity, in normal preservation conditions, for better understanding. Exceptional preservation conditions for organic remains pertain much more rarely, but their transformative potential for understanding burial ritual means that examples must be fully exploited; the commonalities among the widely dispersed known examples suggest that their results can be used to inform burial rituals more generally.

In many cases, truncation means that little is left apart from the most deeply buried interments, but grave fills and other features including cemetery surfaces with their associated assemblages and evidence for markers, do sometimes survive to some depth. Where more systematically documented, these may aid in the construction of a fuller ritual sequence beyond the point of burial. Given the variety of evidence assembled above, specific explanations, for example in relation to Christian cult in the Abbey cemetery at Verulamium or at Butt Road (Colchester), become less necessary; instead such cases should rather be seen simply as manifestations of more widely documented practices.

Diversity in the treatment of redeposited human remains is also notable, varying between carefully structured placing within or beyond the grave and apparent casual redeposition, especially through accidental disturbance of forgotten interments. The occurrence of sometimes extensive charnel assemblages is in itself of wider interest, suggesting pragmatic limits to the construction of identity by the burying group through reference to the bodies of ancestors, especially in heavily used burial space on urban margins. It also reveals changes in attitude to the decomposing corpse and its skeletal residue from the pre-Roman period, where such material in the majority of cases shows careful curation.¹²⁰

Not all of the evidence bears (or can be made to bear) on the reconstruction of individual burial sequences. It is not easy, except where very close spatial association applies, to link specific graves with separate deposits of ceramics and/or faunal and botanical remains or, from current evidence,

¹²⁰ Lally (2008).

to differentiate between material related to burial and other profane uses to which urban margins are put.

This depositional complexity may be considered as 'noise' if emphasis lies on the single grave as the unit of analysis, but this 'noise' itself constitutes significant evidence for funerary rituals, and for the character of the cemetery as a space where burial and other activities overlap. Though mainly urban examples have been cited, similar complexity applies to many rural burial spaces, the small groups or plots on settlement margins, often also closely related to other structural features (e.g. boundary ditches, trackways, crop processing areas) and where evidence for other activities also occurs.¹²¹ A potentially frustrating imprecision can be converted into a source of potential insight by considering the cemetery as a more complex and dynamic space. The combined evidence for the disturbance of burials and the abandonment of monuments may allow some better approximations for the duration of commemorative activity, and thus perhaps the significance of the dead as social actors. The evidence for associated profane activity also helps convert the abstracted space of the cemetery site plan into a closer intuitive approximation of the lived environment.

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BIBLIOGRAPHY

- Airoidi F. (2002) "Le incinerazioni in età tardoromana: caratteristiche e diffusione del fenomeno", in *La necropoli tardoantica: ricerche archeologiche nei cortili dell'Università cattolica*, ed. M. Sannazaro (Milan 2002) 115–24.

¹²¹ Esmonde Cleary (2000).

- Ascenzi A., Bianco P., Nicoletti R., Ceccarini G., Fornaseri M., Graziani G., Giuliani M. R., Rosicarello R., Ciuffarella L. and Granger-Taylor H. (1996) "The Roman mummy of Grottarossa", *Human Mummies. A Global Survey of their Status and the Techniques of Conservation* (3), ed. K. Spindler (Vienna 1996) 205–17.
- Aspöck E. (2011) "Past 'disturbances' of graves as a source: taphonomy and interpretation of reopened Early Medieval inhumation graves at Brunn am Gebirge (Austria) and Winnall II (England)", *OJA* 30 (2011) 299–324.
- Ballet P., Cordier P. and Dieudonné-Glad N. (2003) edd. *La ville et ses déchets dans le monde romain: rebuts et recyclages* (Montagnac 2003).
- Barber B. and Bowsher D. (2000) *The Eastern Cemetery of Roman London. Excavations 1983–(1990)* (London 2000).
- Barber B. and Hall J. (2000) "Digging up the people of Roman London", in *London Underground: the Archaeology of a City*, edd. I. Haynes, H. Sheldon and L. Hannigan (Oxford 2000) 102–20.
- Beasley M. (2006) "Roman boundaries, roads and ritual: excavations at the Old Sorting Office, Swan Street, Southwark", *Transactions of the London and Middlesex Archaeological Society* 57 (2006) 23–69.
- Belcastro M. G. and Ortalli J. (2010) edd. *Sepoltura anomale: indagini archeologiche e antropologiche dall'epoca classica al Medioevo in Emilia Romagna* (Florence 2010).
- Biddle M. and Kjølby-Biddle B. (2001) "The origins of St Albans abbey: Romano-British cemetery and Anglo-Saxon monastery", in *Alban and St Albans. Roman and Medieval Art, Architecture and Archaeology*, edd. M. Henig and P. Lindley (Leeds 2001) 45–77.
- Blaizot F. et al. (2009) edd. *Pratiques et espaces funéraires de la Gaule durant l'Antiquité* (Gallia 66.1: themed volume) (Paris 2009).
- Blaizot F., Bonnet C., Castex D. and Duday H. (2001) "Trois cimetières ruraux de l'antiquité tardive dans la moyenne vallée du Rhône: les sites du Pillon à Marennes (Rhône), du Trillet à Meyzieu (Rhône) et des Girardes à Lapalud (Vaucluse)", *Gallia* 58 (2001) 271–362.
- Booth P. et al. (2011) *On Track: the Archaeology of High Speed 1 Section 1 in Kent* (Oxford 2011).
- Booth P., Dodd A., Robinson M. and Smith A. (2007) *The Thames Through Time: the Archaeology of the Gravel Terraces of the Upper and Middle Thames: the Early Historical Period, AD 1–1000*, (Oxford 2007).
- Booth P., Simmonds A., Boyle A., Clough S., Cool H. E. M. and Poore D. (2010) *The Late Roman Cemetery at Lankhills, Winchester. Excavations 2000–2005* (Oxford 2010).
- Bowes K. (2006) "Villas and cult", in *Villas tardoantiquas en el Mediterraneo occidental*, edd. A. Chavarría, J. Arce and G. P. Brogiolo (Madrid 2006) 73–95.
- Brickley M. and McKinley J. (2004) *Guidelines to the Standards for Recording Human Remains*, (Reading 2004).
- Brooks H. (2006) *A Roman Temple-Tomb at Colchester Royal Grammar School, 6 Lexden Road, Colchester, Essex. August–September 2005* (Colchester Archaeological Trust Report 345) <http://cat.essex.ac.uk/reports/CAT-report-0345.pdf>.
- Buccellato A. and Catalano P. (2003) "Il comprensorio della necropoli di via Basiliano (Roma): un'indagine multidisciplinare", *MEFRA* 115 (2003) 311–76.
- Buccellato A., Catalano P. and Musco S. (2008) "Alcuni aspetti rituali evidenziati nel corso dello scavo della necropoli Collatina", in *Pour une archéologie du rite. Nouvelles perspectives de l'archéologie funéraire*, ed. J. Scheid (Rome 2008) 59–88.
- Budd P., Millard A., Chenery C., Lucy S. and Roberts C. (2004) "Investigating population movement by stable isotope analysis: a report from Britain", *Antiquity* 78 (2004) 127–41.
- Burnham B., Hunter F. and Fitzpatrick A. (2006) "Roman Britain in 2005: sites explored", *Britannia* 37 (2006) 369–428.
- Burnham B., Hunter F. and Booth P. (2008) "Roman Britain in 2007: sites explored", *Britannia* 39 (2008) 263–336.

- Butler J. (2006) *Reclaiming the Marsh: Archaeological Excavations at Moor House, City of London* (London 2006).
- Carra Bonacasa R. M. (1996) *Agrigento. La necropoli paleocristiana sub divo* (Rome 1996).
- Carrott J., Jacques D., Mant J. and Gardner S. (n.d.) "The animal bone", in *Romans Lose their Heads. An Unusual Cemetery at The Mount, York*, ed. K. Hunter-Mann (Archaeology of York Web Series 6) <http://www.iadb.co.uk/driffield6/index.php>.
- Carver M., Hills C. and Scheschkewitz J. (2009) *Wasperton: A Roman, British and Anglo-Saxon Community in Central England* (Woodbridge 2009).
- Catalano P. (2008) "Les ensembles funéraires de l'époque impériale à Rome", *Dossiers d'Archéologie* 330 (2008) 10–13.
- Chapman E. *et al.* (2010) "Roman Britain in 2009: sites explored", *Britannia* 41 (2010) 341–408.
- Chenery C., Eckardt H. and Müldner G. (2011) "Cosmopolitan Catterick? Isotopic evidence for population mobility on Rome's northern frontier", *JAS* 38 (2011) 1525–36 <http://dx.doi.org/10.1016/j.jas.2011.02.018>.
- Chioffi L. (1998) *Mummificazione e imbalsamazione a Roma ed in altri luoghi del mondo romano* (Rome 1998).
- Clarke G. (1979) *Pre-Roman and Roman Winchester, Part 2: Roman Cemetery at Lankhills* (Oxford 1979).
- Colardelle R. (2008) *La ville et la mort: Saint-Laurent de Grenoble, (2000) ans de tradition funéraire* (Turnhout 2008).
- Connor A. and Buckley R. (1999) *Roman and Medieval Occupation in Causeway Lane, Leicester* (Leicester 1999).
- Cooke N. (1998) *The Definition and Interpretation of Late Roman Burial Rites in the Western Empire* (Ph.D. diss., Univ. of London 1998).
- Cool H. E. M. (2011) "Funerary contexts", in *Artefacts from Roman Britain. Their Purpose and Use*, ed. L. Allason-Jones (Cambridge, 2011) 293–313.
- (2004) *The Roman Cemetery at Brougham, Cumbria: Excavations 1966–67* (London 2004).
- Crerar B. (2013) *Contextualising Deviance: a Regional Approach to Decapitated Inhumation in Late Roman Britain* (Ph.D. diss., Univ. of Cambridge 2013).
- Crossan C. (2001) *Archaeological Excavations at the Garrison Sports Pitch, Circular Road North, Colchester, Essex (Abbey Field)* (Colchester Archaeological Trust Report 138) <http://cat.essex.ac.uk/summaries/CAT-0138.html>.
- Crummy N., Crummy P. and Crossan C. (1993) *Excavations of Roman and Later Cemeteries, Churches and Monastic Sites in Colchester* (Colchester 1993).
- Crummy P. *et al.* (2007) *Stanway: an Elite Burial Site at Camulodunum* (London 2007).
- Davies S., Bellamy P., Heaton M. and Woodward P. (2002) *Excavations at Alington Avenue, Fordington, Dorchester, Dorset 1984–7* (Dorchester 2002).
- Devièse T., Ribechini E., Baraldi P., Farago-Szekeres B., Duda H., Regert M. and Colombini M. P. (2011) "First chemical evidence of royal purple as a material used for funeral treatment discovered in a Gallo-Roman burial (Naintré, France, third century AD)", *Analytical and Bioanalytical Chemistry* 401.6 (2011) 1739–48.
- Duday H. (2009) *Archaeology of the Dead* (Oxford 2009).
- Eckardt H. *et al.* (2010) "A long way from home", in *Roman Diasporas: Archaeological Approaches to Mobility and Diversity in the Roman Empire*, ed. H. Eckardt (Portsmouth, Rhode Island 2010) 99–130.
- Esmonde Cleary A. S. (2000) "Putting the dead in their place: cemetery location in Roman Britain", in *Burial, Society and Context in the Roman World*, edd. J. Pearce, M. Millett and M. Struck (Oxford 2000) 127–42.
- Farago-Szekeres B. and Duday H. (2008) "Les tombes fastueuses de Naintré", *Dossiers d'Archéologie* 330 (2008) 120–27.
- Farwell D. and Molleson T. (1993) *Excavations at Poundbury, Dorchester, Dorset, 1966–1980. Volume 2: the Cemeteries* (Dorchester 1993).

- Findlater G., El-Najjar M., Al-Shiyab A.-H., O'Hea M. and Easthaugh E. (1998) "The Wadi Faynan Project: the south cemetery excavation, Jordan 1996: a preliminary report", *Levant* 30 (1998) 69–83.
- Finn N. (2004) *The Origins of a Leicester Suburb: Roman, Anglo-Saxon, Medieval and Post-medieval Occupation on Bonners Lane* (Oxford 2004).
- Fiocchi Nicolai V. (2001) *Strutture funerarie ed edifici di culto paleocristiani di Roma dal 4. al 6. secolo* (Vatican City 2001).
- Foreman S. (2009) *Channel Tunnel Rail Link Section 1* (York 2009) doi:10.5284/1000230.
- Fulford M. (2001) "Links with the past'. Pervasive ritual behaviour in Roman Britain", *Britannia* 32 (2001) 199–218.
- Fulford M. and Holbrook N. (2011) "Assessing the contribution of commercial archaeology to the study of the Roman period in England, 1990–2004", *Antf* 91 (2011) 323–45.
- Fulford M., O'Riordan E. J., Clarke A. and Rains M. (2010) "Silchester Roman town: developing virtual research practice 1997–2008", in *Digital Research in the Study of Classical Antiquity*, edd. G. Bodard and S. Mahoney. (Farnham 2010) 15–34.
- Gardner R. (2005) "A Roman cemetery in Clarence Street, Leicester", *Leicestershire Archaeological and Historical Society Transactions* 79 (2005) 27–97.
- Goldman A. (2007) "The Roman period cemeteries at Gordion in Galatia", *JRA* 20 (2007) 299–320.
- Goodman P. (2007) *The Roman City and its Periphery: From Rome to Gaul* (London 2007).
- Gowland R. (2007) "Age, ageism and osteological bias: the evidence from Late Roman Britain", in *Age and Ageing in the Roman Empire*, edd. M. Harlow and R. Lawrence (Portsmouth, Rhode Island 2007) 153–70.
- Gowland R. and Garnsey P. (2010) "Skeletal evidence for health, nutritional status and malaria in Rome and the empire", in *Roman Diasporas: Archaeological Approaches to Mobility and Diversity in the Roman Empire*, ed. H. Eckardt (Portsmouth, Rhode Island 2010) 131–56.
- Green C. (1993) "The rite of plaster burial in the context of the Romano-British cemetery at Poundbury, Dorset, England", in *Römerzeitliche Gräber als Quellen zu Religion, Bevölkerungsstruktur und Sozialgeschichte*, ed. M. Struck (Mainz, 1993), 421–32.
- Green C., Paterson M. and Biek L. (1981) "The Romano-British cemetery at the site of the Crown Buildings, Dorchester", *Proceedings of the Dorset Natural History and Archaeology Society* 103 (1981) 67–100.
- Handley M. (2011) *Dying on Foreign Shores: Travel and Mobility in the Late-Antique West* (JRA Supplementary Series 86) (Portsmouth, Rhode Island 2011).
- Hilts C. (2013) "Remarkable ringfenced burials from Roman Colchester", *Current Archaeology News*. <http://www.archaeology.co.uk/articles/news/remarkable-ringfenced-burials-from-roman-colchester.htm> (last accessed 10th April 2013).
- Holbrook N. (2008) Cirencester Excavations VI: Excavations and Observations in Roman Cirencester, 1998–2007 (Cirencester 2008).
- Holbrook N. and Thomas A. (2004) "An Early-Medieval monastic cemetery at Llandough, Glamorgan: excavations in 1994", *Medieval Archaeology* 49 (2004) 1–92.
- Hope V. M. (2009) *Roman Death: Dying and the Dead in Ancient Rome* (London 2009).
- Hunter-Mann K. (n.d.) *Romans Lose their Heads. An Unusual Cemetery at The Mount, York* (Archaeology of York Web Series 6) <http://www.iadb.co.uk/driffeld6/index.php>.
- Johnson M. J. (2009) *The Roman Imperial Mausoleum in Late Antiquity* (Cambridge 2009).
- Keegan S. L. (2002) *Inhumation Rites in Late Roman Britain : the Treatment of the Engendered Body*, (Oxford 2002).
- Killgrove K. and Tykot R. H. (2013) "Food for Rome: a stable isotope investigation of diet in the Imperial period (1st–3rd centuries AD)", *JAnthArch* 32.1 (2013) 28–38 <http://dx.doi.org/10.1016/j.jaa.2012.08.002>.
- Lally M. (2008) "Bodies of difference in Iron Age southern England", in *Changing Perspectives on the First Millennium BC*, edd. N. Sharples et al. (Oxford 2008) 119–38.

- Leach S. *et al.* (2009) "Migration and diversity in Roman Britain: a multidisciplinary approach to the identification of immigrants in Roman York, England", *American Journal of Physical Anthropology* 140 (2009) 546–61. doi:10.1002/ajpa.21104.
- Leach S., Eckardt H., Chenery C., Müldner G. and Lewis, M. (2010) "A lady of York: migration, ethnicity and identity in Roman Britain", *Antiquity* 84 (2010) 131–145.
- Legrottaglio G. (2005) "La sepoltura Milanese: pratiche funerary e identità culturale" in *La Signora del sarcofago: una sepoltura di rango nella necropoli dell'Università cattolica*, edd. M. P. Rossignani *et al.* (Milan 2005) 243–58.
- Leone A. (2007) "Changing urban landscapes: burials in North African cities from the Late antique to Byzantine periods", in *Mortuary Landscapes of North Africa*, edd. L. Stirling and D. Stone (Toronto 2007) 164–203.
- Lewis M. E. (2010) "Life and death in a *civitas* capital: metabolic disease and trauma in the children from late Roman Dorchester, Dorset", *American Journal of Physical Anthropology* 142 (2010) 405–16.
- Mackinnon M. (2007) "Peopling the mortuary landscape of North Africa: an overview of the human osteological evidence", in *Mortuary Landscapes of North Africa*, edd. L. Stirling and D. Stone (Toronto 2007) 204–40.
- Maltby M. (2010) *Feeding a Roman Town: Environmental Evidence from Excavations in Winchester, 1972–1985* (Winchester 2010).
- Mattingly D. (2004) "Being Roman: expressing identity in a provincial setting", *JRA* 17 (2004) 5–25.
- Mays S., Brickley M. and Dodwell N. (2002) *Human Bones from Archaeological Sites: Guidelines for Producing Assessment Documents and Analytical Reports* (London 2002).
- McKinley J. and Dinwiddy K. E. (2009) "'Deviant' burials from a late Romano-British cemetery at Little Keep, Dorchester", *Proceedings of the Dorset Natural History and Archaeology Society* 130 (2009) 43–61.
- McKinley J. and Roberts C. (1993) *Excavation and Post-Excavation Treatment of Cremated and Inhumed Human Remains* (Reading 1993).
- McWhirr A., Viner L. and Wells C. (1982) *Romano-British Cemeteries at Cirencester* (Cirencester 1982).
- Millett M. (1990) *The Romanization of Britain: an Essay in Archaeological Interpretation* (Cambridge 1990).
- Minozzi S. and Zabotti F. (2008) "Elaborazione di metodiche comuni: una banca dati archeologica ed antropologica per la gestione dei dati di scavo", in *Pour une archéologie du rite. Nouvelles perspectives de l'archéologie funéraire*, ed. J. Scheid (Rome 2008) 337–49.
- Moliner M. *et al.* (2003) *La nécropole de Sainte-Barbe à Marseille : IVe s. av. J.-C.-IIe s. apr. J.-C.* (Aix-en-Provence 2003).
- Morris I. (1992) *Death Ritual and Social Structure in Classical Antiquity* (Cambridge 1992).
- Müldner G., Chenery C. and Eckardt H. (2011) "The 'headless Romans': multi-isotope investigations of an unusual burial ground from Roman Britain", *JAS* 38 (2011) 280–90. doi: 10.1016/j.jas.2010.09.003.
- Museum of London (n.d.) *Centre for Human Bioarchaeology* <http://www.museumoflondon.org.uk/English/Collections/OnlineResources/CHB/Home.htm>.
- Niblett R. (1999). *The Excavation of a Ceremonial Site at Folly Lane, Verulamium* (London 1999).
- Nin N. (2006) *La nécropole meridionale d'Aix-en-Provence* (Montpellier 2006).
- Norman N. (2003) "Death and burial of Roman children: the case of the Yasmina cemetery at Carthage-part II: the archaeological evidence", *Mortality* 8 (2003) 36–47.
- Orr K. (2010) *Archaeological Excavations at 1 Queens Road (Handford House, now 'Handford Place'), Colchester, Essex 2003 and 2004–2005* (Colchester Archaeological Trust Report 323).
- Ottaway P. J., Qualmann K. E., Rees H. and Scobie G. (2012) *The Roman Cemeteries and Suburbs of Winchester Excavations 1971–86* (Winchester 2012).
- Otten T. (2003) *Die Ausgrabungen unter St. Viktor zu Xanten* (Mainz 2003).

- Paris-Poulain D., Nardi Combescure S. and Istria D. (2009) edd. *Les premiers temps chrétiens dans le territoire de la France actuelle: hagiographie, épigraphie et archéologie* (Rennes 2009).
- Pearce J. (2008) "Burial evidence from Roman Britain: the un-numbered dead", in *Pour une archéologie du rite. Nouvelles perspectives de l'archéologie funéraire pour l'époque romaine impériale*, ed. J. Scheid (Rome 2008) 29–42.
- (2002) "Ritual and interpretation in provincial Roman cemeteries", *Britannia* 33 (2002) 373–78.
- Pearce J., Booth P. and Niblett R. (2008) "Les nécropoles romaines en Grande Bretagne: nouvelles découvertes", *Dossiers d'Archéologie* 330 (2008) 28–35.
- Pearce J., Millett M. and Struck M. (2000) edd. *Burial, Society and Context in the Roman World*, (Oxford 2000).
- Petts D. (2003) *Christianity in Roman Britain* (Stroud 2003).
- Philpott R. (1991) *Burial Practices in Roman Britain. A Survey of Grave Treatment and Furnishing A.D. 43–410* (Oxford 1991).
- Pilet C. (1995) *La Nécropole de Saint Martin de Fontenay* (Paris 1995).
- Pitts M. and Griffin R. (2012) "Exploring health and social well-being in Late Roman Britain: an intercemetary approach", *AJA* 116 (2012) 253–76.
- Poczy K. (1964) "Ein neues Mumiengrab in Aquincum", *Archaeologiai Értesítő* 91 (1964) 176–93.
- Pollard A. M., Ditchfield P., McCullagh J. S., Allen T. G., Gibson M., Boston C., Clough S., Marquez-Grant N. and Nicholson R. A. (2011) "These boots were made for walking: the isotopic analysis of a C(4) Roman inhumation from Gravesend, Kent, UK", *American Journal of Physical Anthropology* 146 (2011) 446–56. doi: 10.1002/ajpa.21602.
- Pooley L., Crummy P., Shimmin D., Brooks H., Holloway B. and Masefield R. (2011) *Archaeological Investigations on the 'Alienated Land', Colchester Garrison, Colchester, Essex: May 2004–October 2007* (Colchester Archaeological Report 412) <http://pixel.essex.ac.uk/cat/reports/CAT-report-0412.pdf>.
- Prowse T. L., Barta J. L., von Hunnius T. E., and Small A. M. (2010) "Stable isotope and mtDNA evidence for geographic origins at the site of Vagnari, south Italy", in *Roman Diasporas: Archaeological Approaches to Mobility and Diversity in the Roman Empire*, ed. H. Eckardt (Portsmouth, Rhode Island 2010) 175–98.
- Raynaud C. (2006) "Le monde des morts", *Gallia* 63 (2006) 137–70.
- Rebillard E. (2009) *The Care of the Dead in Late Antiquity* (Ithaca, New York 2009).
- Redfern R. (2008) "A bioarchaeological investigation of cultural change in Dorset, England (mid-late fourth century B.C. to the end of the fourth century A.D.)", *Britannia* 39 (2008) 161–91.
- Redfern R. and Gowland R. L. (2011) "A bioarchaeological perspective on the pre-adult stages of the life course: implications for the care and health of children in the Roman empire", in *Families in the Roman and Late Antique World*, edd. M. E. Harlow and L. L. Loven (London 2011) 111–40.
- Reece R. (2005) "Incomers in a cemetery outside the fort at Brougham", *JRA* 18 (2005) 675–80.
- (1999) "Two Late Roman cemeteries in Italy: questions of interpretation", *JRA* 12 (1999) 793–97.
- (1995) "Bones, bangles and barbarians: towards the perfect cemetery report", *Antiquity* 69 (1995) 414–17.
- (1982) "Bones, bodies and dis-ease", *OJA* 1 (1982) 347–58.
- Richards J. (1999) *Meet the Ancestors* (London 1999).
- Rife J. (2012) *Isthmia IX: The Roman and Byzantine Graves and Human Remains* (Athens 2012).
- Roberts C. A. and Cox M. (2004) "The human population: health and disease", in *A Companion to Roman Britain*, ed. M. Todd (Oxford 2004) 242–72.

- Roberts C. A. and Cox M. (2003) *Health and Disease in Britain from Prehistory to the Present Day* (Stroud 2003).
- Rossignani M. P., Sannazaro M. and Legrottaglie G. (2005) *La Signora del sarcofago: una sepoltura di rango nella necropoli dell'Università cattolica* (Milan 2005).
- Rottloff A. (2006) *Lebensbilder römischer Frauen* (Mainz 2006).
- Sankey D. and Connell B. (2007) "Late Roman burials and extra-mural medieval and later development at Premier Place, Devonshire Square, Houndsditch, London EC2", *Transactions of the London and Middlesex Archaeological Society* 58 (2007) 53–79.
- Sannazaro M. (2002) ed. *La necropoli tardoantica: ricerche archeologiche nei cortili dell'Università cattolica* (Milan 2002).
- Sayer K. (2006) *An Assessment of an Archaeological Excavation at 52–56 Lant Street, London Borough of Southwark LTU03* (Unpublished Assessment Report: Pre-Construct Archaeology) doi: 10.5284/1017691.
- Scheid J. (2008) ed. *Pour une archéologie du rite. Nouvelles perspectives de l'archéologie funéraire pour l'époque romaine impériale* (Rome 2008).
- Scheidel W. (2010) "Physical wellbeing in the Roman World (v2.0)", *Stanford Working Papers in the Classics* <http://www.princeton.edu/~pswpc/pdfs/scheidel/091001.pdf> (accessed November 2012).
- Scheidel W. (2004) "Human mobility in Roman Italy I: the free population", *JRS* 94 (2004) 1–26.
- Schmidt W. (2000) "Spätantike Gräberfelder in den Nordprovinzen des Römischen Reiches und das Aufkommen christlichen Bestattungsbrauchtums. Tricciana (Ságvár) in der Provinz Valeria", *Saalhb* 50 (2000) 213–441.
- Simmonds A., Márquez-Grant N. and Loe L. (2008) *Life and Death in a Roman City. Excavation of a Roman cemetery with a Mass Grave at 120–122 London Road, Gloucester* (Oxford 2008).
- Srejovic D. and Vasic C. (1994) "Emperor Galerius' buildings in Romuliana (Gamzigrad, eastern Serbia)", *AnTard* 2 (1994) 123–41.
- Swain H. and Roberts M. (2001) *The Spitalfields Roman* (2nd edn. London 2001).
- Swift D. (2003) *Roman Burials, Medieval Tenements and Suburban Growth, 201 Bishopsgate, City of London* (London 2003).
- Swift E. (2000) *Regionality in Dress Accessories in the Late Roman West* (Monographies Instrumentum 11) (Montagnac 2000).
- Symonds M. and Mason D. (2009) edd. *Frontiers of Knowledge: a Research Framework for Hadrian's Wall. Volume I: Resource Assessment* (Durham 2009).
- Theuvs F. (2009) "Grave goods, ethnicity, and the rhetoric of burial rites in late antique northern Gaul", in *Ethnic Constructs in Antiquity*, edd. N. Roymans and T. Derks (Amsterdam 2009) 283–320.
- Tomei M. (2006) ed. *Roma. Memorie dal sottosuolo. Ritrovamenti archeologici 1980/2006* (Milan 2006).
- Topal J. (1997) "Memento mori Aquincum", in *Out of Rome. Augusta Raurica/Aquincum: das Leben in zwei römischen Provinzstädten*, edd. P. Zsidi and A. Furger (Basel 1997) 313–17.
- van Andringa W. and Lepetz S. (2008) "Pour une archéologie de la mort à l'époque romaine: fouille de la nécropole de Porta Nocera à Pompéi", *CRAI* (2008) 1131–61.
- Vaquerizo D. (2010) *Las áreas suburbanas en la ciudad histórica: topografía, usos, function* (Córdoba 2010).
- Watson S. (2003) *An Excavation in the Western Cemetery of Roman London: Atlantic House, City of London* (London 2003).
- Weekes J. (2011) "A review of Canterbury's Roman cemeteries", *Archaeologia Cantiana* 131 (2011) 23–42.
- Wenham L. (1968) *The Romano-British Cemetery at Trentholme Drive, York* (London 1968).
- Wilson R. J. A. (2011) "Funerary feasting in Early Byzantine Sicily: new evidence from Kaukana", *AJA* 115 (2011) 263–302.

- Winton H. (2009) *Tar Barrow, Cirencester, Gloucestershire. A Roman or Iron Age Ceremonial Area. Aerial Photo Interpretation and Mapping* (English Heritage Research Department Report Series 51–2009) http://services.english-heritage.org.uk/ResearchReportsPdfs/051_2009WEB.pdf.
- Yasin A. (2009) *Saints and Church Spaces in the Late Antique Mediterranean: Architecture, Cult and Community* (Cambridge 2009).

LIST OF FIGURES

- Fig. 1. The occurrence of excavations of Romano-British cemeteries, 1921–2010, by five year periods, as reported in JRS / Britannia.
- Fig. 2. A Late Roman inhumation burial from Boscombe Down, containing the remains of a female adult and a child. The preserved footwear is visible at the base of the coffin (see Table 4). (By kind permission of Wessex Archaeology, Copyright Wessex Archaeology).
- Fig. 3. St Cheron, Chartres, burial 98 4th–5th century A.D., recorded by the anthropologie de terrain method (D. Joly and P. Courtaud). The marked transversal compression of the skeleton, with the upper limbs beneath the thorax, ribs below the vertebrae and the femoral heads beneath the pelvis, suggest that the body was placed supine in a V-section wooden coffin (a hollowed-out log?). Where the ligaments decomposed more rapidly, the bones formerly connected by them had separated and slid down the sides of the coffin to gather at its base before the coffin itself rotted. (By kind permission of Henri Duday).